

**ON-CHIP INDUCTOR HAVING REDUCED EFFECTIVE IMPEDANCE AND
METHOD OF MANUFACTURE THEREOF**

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ABSTRACT OF THE DISCLOSURE

An on-chip inductor and/or on-chip transformer includes at least one dielectric layer and at least one conductive winding on the at least one dielectric layer.

- 10 The conductive winding has a substantially square geometry and has at least its exterior corners geometrically shaped to reduce impedance of the conductive winding at a particular operating frequency. Since the quality factor of an on-chip inductor is inversely proportional to the
- 15 effective series impedance of an inductor at an operating frequency, by reducing the effective series impedance, the quality factor is increased.